CHAPTER 5

ENGINEERING MATERIAL

When you have read and understood this chapter, you should be able to answer the following learning objectives:

- Define the purpose of the Navy supply system.
- Describe the methods used to identify material.
- Explain the purpose and use of allowance lists.
- Describe the procedures used to procure repair parts.

Most Navy supervisors do not understand the Navy supply system well enough to use it effectively and this chapter should help you improve your understanding. While the engineer officer is responsible for supply in the engineering department, this chapter is addressed to all engineering supervisors whether they are engineer officers or new chief petty officers. You need to know how the system works, and how NAVSEA uses the system to supply the engineering departments in Navy ships. This chapter provides only general information because supply officers are responsible for the logistics of supply. However, the supply officer cannot do the job without the cooperation of all departments on the ship. The specific procedures are described in publications issued by NAVSUP, NAVSEA, and NAVELEX.

THE NAVY'S SUPPLY SUPPORT SYSTEM

The supply support system is responsible for the procurement, storage, delivery, and accountability of materials used in the Navy. It is part of a larger supply structure called the Defense Logistics Agency (DLA) which is established at the Department of Defense (DOD) level. The DLA is responsible for centralized management of specified common-use commodities or services for the entire DOD. It eliminates duplication and overlapping of effort, cuts costs, and improves the effectiveness of supply service operations throughout the DOD. The DLA and its field organizations manage categories of commonly used items in the areas of subsistence, clothing and textiles, military general supplies, petroleum, military construction and automotive equipment, the common services of traffic management, and surplus sales.

The DLA owns and controls bulk stocks of a designated commodity, and each service submits its requirements for that commodity to the DLA. After matching requirements against stocks on hand, the DLA computes the overall requirement for the Department of Defense and buys accordingly.

For categories of material designated for DLA managership, the Navy establishes a retail office instead of a supply demand control point (SDCP). This office serves as inventory manager for Navy-owned stocks and determines Navy requirements for the designated material. Each Navy stocking activity reports its net requirements for the material to the Navy retail office, which combines the reports received to establish Navywide requirements and submits them to DLA. The following lists summarize the division of functions between the DLA and the individual services:

The DLA has the following responsibilities:

- Coordinate and determine total commodity requirements to support the combined military services
- Procure stock
- Manage large-scale stocks (called wholesale stocks)
- Catalog (Federal Supply Catalog for the commodity)
- Set standard pricing
- Coordinate standardization
- Use excess material and sell surplus material

Each military service (Army, Navy, and Air Force) has the following responsibilities:

- Determine items within commodity groups that are required

- Calculate its own requirements
- procure its own material
- Manage its own stocks (termed *retail stocks)*
- Initiate research and development
- Maintain technical and management control over use of the commodity within its service

There are two parts of the Navy's supply support system: (1) The military commands that retain direct control over certain major equipment and components known as major end items, and (2) the Navy Supply System (NAVSUP). We'll discuss each in the following paragraphs.

MATERIAL CONTROLLED BY MILITARY COMMANDS

One part of the supply support system consists of the material commands of the Navy Department who retain direct control over certain major equipments and components known as major end items. These commands are responsible for the design, development, procurement, maintenance, and control of ships, aircraft, and missiles, and the major equipment installed in them or used in their support.

The Navy procures many of these major components and furnishes them to shipbuilders or aircraft manufacturers for installation. This retention of control by a particular command or bureau permits better analysis of the effect of design changes on requirements and makes sure that contract delivery schedules and shipments are adjusted to meet current needs.

Each individual command determines its requirements for major items of equipment where need is based on planned requirements rather than past issue. For example, NAVSEA controls major end items such as deck winches and major electronic equipment. Because the mission of each material command is distinctive, there is little duplication of function. The Navy conducts frequent analysis of the major end items to be sure this type of control contributes to overall effectiveness and economy.

THE NAVY SUPPLY SYSTEM

The other part of the supply support system, NAVSUP, is concerned with over a million items assigned to inventory control points (ICPs). These items include such categories of material as repair parts and consumable supplies. NAVSUP is responsible for the purchase, cataloging, receipt, storage, and distribution of all required materials. To meet its responsibility, NAVSUP must have the data needed to predict answers to the following questions:

WHAT will be required?

HOW MUCH will be required?

WHEN will specific items be required?

WHERE will items be needed?

HOW will they be transported?

The answers to the preceding questions help NAVSUP personnel control the hundreds of thousands of items at all stages. Those personnel must give the items specific identification codes; coordinate supply information to avoid duplication of authority, responsibility, and functions; and prevent pockets that do not clarify authority, responsibility, and functions.

The NAVSUP system works at four levels: department, bureau or command, SCDPs, and individual activities.

The department chiefly determines broad policy and reviews overall operation and performance.

The Navy Supply System Command has management control over most kinds of materials. (The most notable exception is a limited number of material command-controlled items.) In other words, the bureau or individual command formulates policy for, and exercises general supervision over, cataloging, procurement, stock control, storage, transportation, accounting, issue, and disposal of various categories of supplies, equipment, and repair parts.

In addition to management control, NAVSUP has technical direction over certain categories of materials. In general, however, technical direction is vested in some other command or office. Technical direction involves the technical functions of research, design, inspection, and installation. For example, NAVSEA has technical direction of hull, mechanical, electrical, and ordnance supplies; NAVELEX of electronic supplies; NAVAIR of aviation supplies; and BUMED of medical and dental supplies and equipment.

NAVSUP has delegated to the supply departments established at Navy field activities the general responsibility to procure, receive, store, distribute, and control the materials that are required by the particular activity. These activity supply departments must also maintain the necessary accounts for materials, unless there is a separate fiscal department to do that.

TYPES OF MATERIAL

To satisfy the requirements of material reporting and accounting, the Navy divides material into five categories: (1) equipment, (2) equipage, (3) repair parts, (4) consumable supplies, and (5) services. We'll explain each one in the next paragraphs.

Equipment is any fictional electronic, ordnance, hull, mechanical, or electrical unit that is operated singly or as a component of a system or subsystem and that is identified by a Component Identification Description/Allowance Parts List (CID/APL). Examples of equipment are turbines, pumps, and electric motors.

Equipage is an item of a durable nature that is not altered or consumed in use. The allowance of equipage usually is determined on an individual ship basis and is contained in the Allowance Parts Lists (APLs), Allowance Equipage Lists (AELs), or other authorization issued by commands, bureaus, or offices. Equipage items differ from equipment in that they are usually portable. Certain items of equipage are designated "controlled equipage" and require increased management control for the following reasons:

- High unit cost
- Vulnerability to pilferage
- Essentiality to the ship's mission
- Personnel safety

NAVSUPPub 485, appendix II, lists items designated as controlled equipage. Those items requiring custodial signatures are identified by asterisks.

A repair part is any item that appears in an APL, a manufacturer's instruction book, technical manual, or a similar parts list. Consumable materials such as gaskets, which have an equipment application, are also considered repair parts.

Consumable supplies are administrative and housekeeping items, general-purpose hardware, common tools, or any other item not specifically defined as equipage or repair parts.

Services are nonmaterial requirements such as equipment rental, commercial telephone, pilotage, and tug hire.

IDENTIFICATION OF MATERIAL

Rarely do any two persons see the same details of the same object, much less describe them in the same words. This need for a brief, accurate means to identify one specific item of material led to the Federal Catalog System presently in use throughout the DOD and civil agencies of the government. This system requires that only one identification number be assigned to a specific item of material used by and carried under centralized inventory control of any civil or military agency of the Federal Government. The Federal Catalog System includes the requirement to name, describe, classify, and number all items, and to publish catalogs and stock and identification lists.

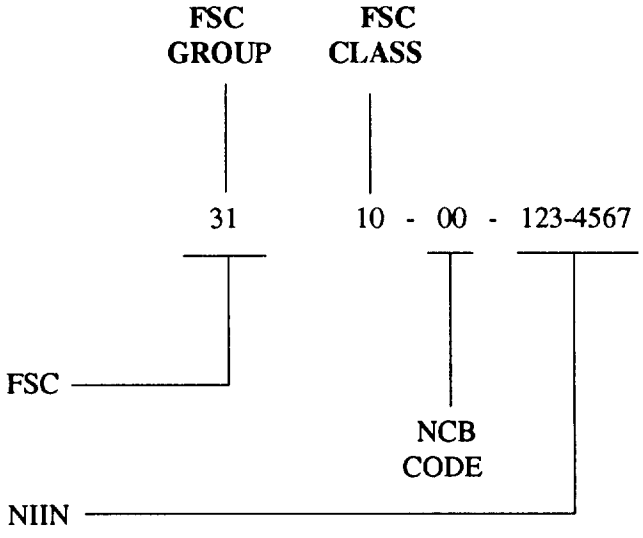
NATIONAL STOCK NUMBERS

The national stock number (NSN) consists of 13 digits and is the common language of material identification. The first four digits of the NSN make up the Federal Supply Classification (FSC), which has two elements: group and class.

The FSC consists of 76 groups, some of which are shown in the following list. NAVSUP P-485 contains a complete list of assigned groups.

GROUP	TITLE
31	Bearings
43	Pumps and Compressors
48	Valves
59	Electrical and Electronic System Components
79	Cleaning Supplies

The remaining nine digits of the NSN make up the national item identification number (NIIN). The NIIN consists of a two-digit NCB (National Codification Bureau) code and seven digits, which, in conjunction with the NCB code, uniquely identifies each NSN item in the Federal supply distribution system. For example:



There are two NCB codes assigned for the U.S. NCB code OO identifies all FSNs assigned before 31 March 1975. In the following example of two items, the last seven digits of the NIIN are identical, but the items are different. One has an NCB code of 00 and the other has an NCB code of 01. Errors in the use of 00 and 01 can result in rejected requisitions or receipt of incorrect material. (The COG column refers to cognizance which we'll explain in the next paragraph.)

COG	FSC	NIIN	NOMENCLATURE	PRICE
9N	5915	-00-005-8825	FILTER	182.97
2R	1650	-01-005-8836	CYLINDER	2,120.00

COGNIZANCE SYMBOLS

The Navy uses a two-part cognizance symbol to provide supply management information. A number of cognizance symbols are in use, but the majority of stock transactions aboard ship are covered by 1H,1N, 9C, 9N, 9G, 9Q, and 9Z. TIhe first digit of the symbol is a number that identifies the stores account (discussed later in the chapter) in which the material is carried in the supply system. The numbers in this position identify the following locations:

1,3,5,7	Material held in the Navy Stock Account (NSA). When this material is issued, it must be paid for by the requisitioner.
9	Material originally purchased by the Defense Stock Fund but now held in NSA. When this material is issued, it must be paid for by the requisitioner.
2,4,6,8	Material held in the Appropriations Purchases Account (APA). This material is currently issued without charge to the requisitioner.
0	Material not carried in a stores account.

The second part of the cognizance symbol is a letter code that identifies the inventory manager or inventory control point (ICP) that has cognizance, or control, of the material. These inventory managers may be Navy or other DOD activities.

MATERIAL CONTROL CODES

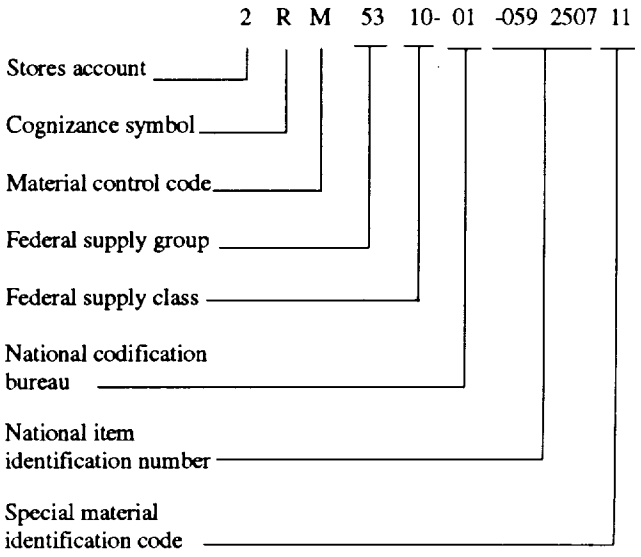
A material control code (MCC) (formerly fraction code) is a single alphabetic character assigned by the inventory manager to segregate items into more manageable groupings (fast, medium, or slow movers) or to relate to field activities special reporting and/or control requirements.

The special material identification code (SMIC) is a two-digit alpha or alphanumeric code that provides the following information:

- Source of quality control
- Technical design or configuration control
- Special controls for procurement, receipt, inspection, test, storage, or issue

Level 1 material is an example of material requiring SMIC coding.

The following NSN illustrates all of the elements that have been discussed:



IDENTIFICATION PUBLICATIONS

The primary publications the engineering department uses to identify material are the Coordinated Shipboard Allowance List (COSAL), manufacturers' publications such as technical manuals and catalogs, and technical bureau or systems command publications.

Most identification publications have notes or introductions that explain how to use them. These publications can be complex. If you have trouble deciphering the codes or reference numbers, supply department personnel will help you.

Allowance Lists

Allowance lists include all nonconsumable items and supporting materials needed on the ship. They serve to limit the quantity and type of such items as equipment, controlled equipage, and repair parts that may be carried aboard at any one time. Ships normally are required to carry a full allowance but may not normally exceed the allowance. Exceptions occur when demand for repair parts warrants an increase and the type commander approves, or for specified categories of material when the type commander and cognizant systems command or bureau approve.

The supply department uses allowance lists to determine responsibility for materials and to maintain custody records and accountability for items of controlled equipage. Allowance lists also serve as authority to procure and replace allowed equipment.

These lists provide valuable identification data not immediately available from other sources. You should use allowance lists as the first source of information on stock numbers of items known to be in the ship's allowance.

Allowance lists for consumable supplies are merely guides to the range and quantities of material that probably will be required to operate a given type of ship. A ship may exceed quantities of individual items shown in these lists without submitting a request for change in allowance.

COSAL.— The COSAL is a technical and supply management document that enables ships to achieve maximum operating capability for extended periods of time without external logistical support.

The COSAL is technical because it contains nomenclature, operating characteristics, specifications, parts lists, and other technical data on all installed equipment and machinery, and nomenclature and characteristics of the equipage and tools required to operate and maintain the ship and its equipment.

The COSAL is a supply management document because it tells the supply officer how much and what kind of material to stock in the storerooms, and the allowance of equipage items that must be carried aboard ship.

Supply personnel use computers to prepare the allowances of material to be carried in the storerooms and material required in the operating spaces from the hundreds of APL/AELs that apply to an individual ship. The preparation of these allowance lists takes into account all of the installed equipment on board, the quantity of each item of that equipment, the failure rate of parts, and the relative importance of these parts to the operation of the equipment. Of course, the COSAL will not provide parts for every equipment breakdown. This would require the ship to carry a spare set of all equipment and machinery, which is impossible.

The Ships' Parts Control Center (SPCC) publishes the COSAL, which covers hull, mechanical, electrical, ordnance, electronics, nuclear weapons, and nuclear power plant equipment. The COSAL includes an introduction section that gives detailed descriptions of its various parts and their contents, and information that will be helpful when using them.

The COSAL does not include ship's store stocks, resale clothing, bulk fuels, subsistence items, expendable ordnance, or repair parts for aircraft. These items are covered by separate outfittings and load list. Allowance requirements for nuclear weapons, guided missiles, and certain fleet ballistic missile (FBM) equipment are included in special supplements to the COSAL.

The COSAL is divided into parts and sections as follows:

Part I

Summary of effective allowance parts/equipage lists (SOEAPLs)

Index-Section A, Noun Name

Index-Section B, Service Application

Index-Section C, APL/AEL to Equipment Identification Code (EIC)

Index-Section D, EIC to APL/AEL

Index-Section E, Work Breakdown Structure to APL/AEL

Part II

Section A–APLs

Section B–Circuit symbol data for all electronics APLs (microfiche only)

Section C– AEL

Part III

Section A–Stock number sequence list–storeroom items (SNSL–SRI)

Section B–Stock number sequence list-operating space items (SNSL-OSI)

Section C–Not used

Section CF–Maintenance module

Section CR–SNSL for ready service spaces

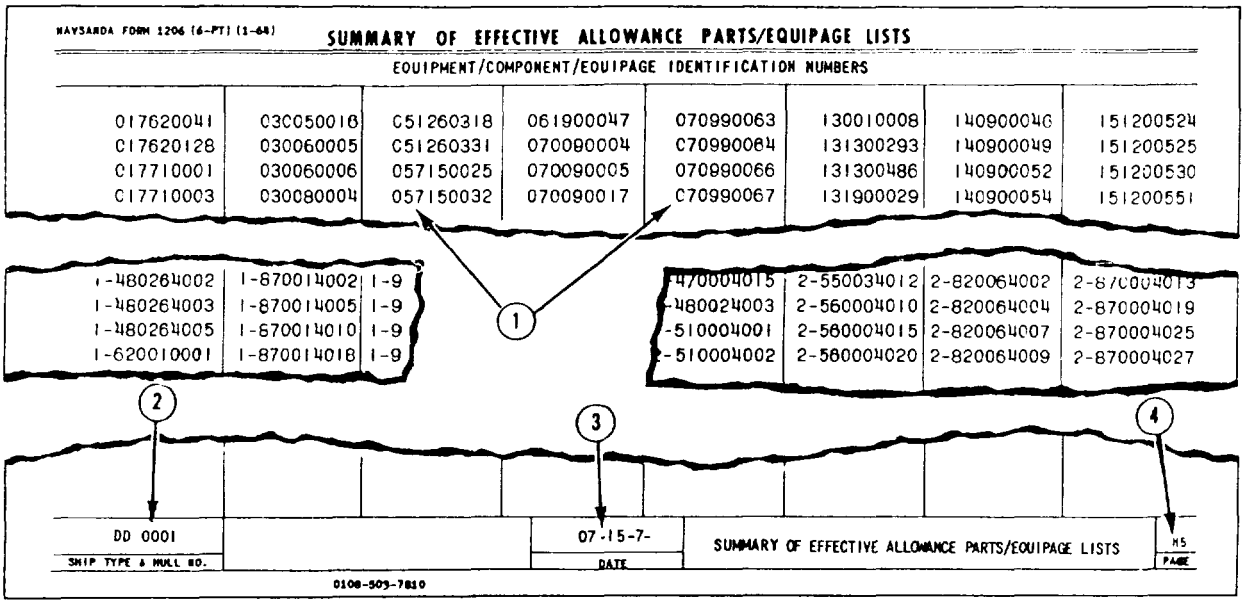
Section D–Alternate number cross reference to stock number

Old to new stock number cross-reference list (filed between sections B and D)

THE SUMMARY OF EFFECTIVE ALLOWANCE PARTS/EQUIPAGE LISTS.— This is a numerical list of all APLs and AELs that are included in the ship's SPCC COSAL. Use this summary to check part II for missing APL/AELs when a new COSAL is received, and periodically thereafter. It is in numerical sequence and should be kept current by adding or deleting identification numbers as changes are made to your COSAL. The summary is illustrated in figure 5-1.

Sections A and B of the index contain exactly the same information arranged to provide a cross-index of all APL/AELs in part II. Figure 5-2 shows examples of sections A and B, and the following list describes the contents of the columns of sections A and B.

1. Equipage/component military essentiality code: Items of equipment that are essential to the ship's mission.
   a. V–Vital. Failure of the equipment could reduce the ship's capability to perform its mission.
   b. N–Nonvital. Failure of this equipment would not adversely affect the ship's mission.
2. Equipment/component/equipage nomenclature/ characteristics: The noun name and partial characteristics description of each APL and AEL.
3. Identification number: The APL or AEL identification number.
4. Quantity: The quantity of each equipment/ component per service aboard ship, covered by the applicable APL. Column 4 will be blank for all AELs.
5. Column number: The applicable AEL column number from which the allowance is determined. This column is blank for all APLs.
6. Notes: A code that indicates specific information about an APL/AEL entry. These codes are listed and defined in the introduction.
7. Allowance support code: Reserved for future use. (See item 11.)



1. Equipment/Component/Equipage Identification Numbers- The APL and AEL Identification Numbers in numerical sequence starting at the top of the page and continuing to the bottom and left to right.
2. Ship Type and Hull No.- The specific ship for which the Summary is published.
3. Date - COSAL Publication date.
4. Page - Consecutive page number of the Summary. H, M and E APL/AEL's are preceded by H to designate hull, mechanical and electrical, ordnance APL/AEL's are preceded by Z, and electronics and ordnance fire control APL/AEL's are preceded by F

Figure 5-1.-Summary of effective allowance parts/equipage list.

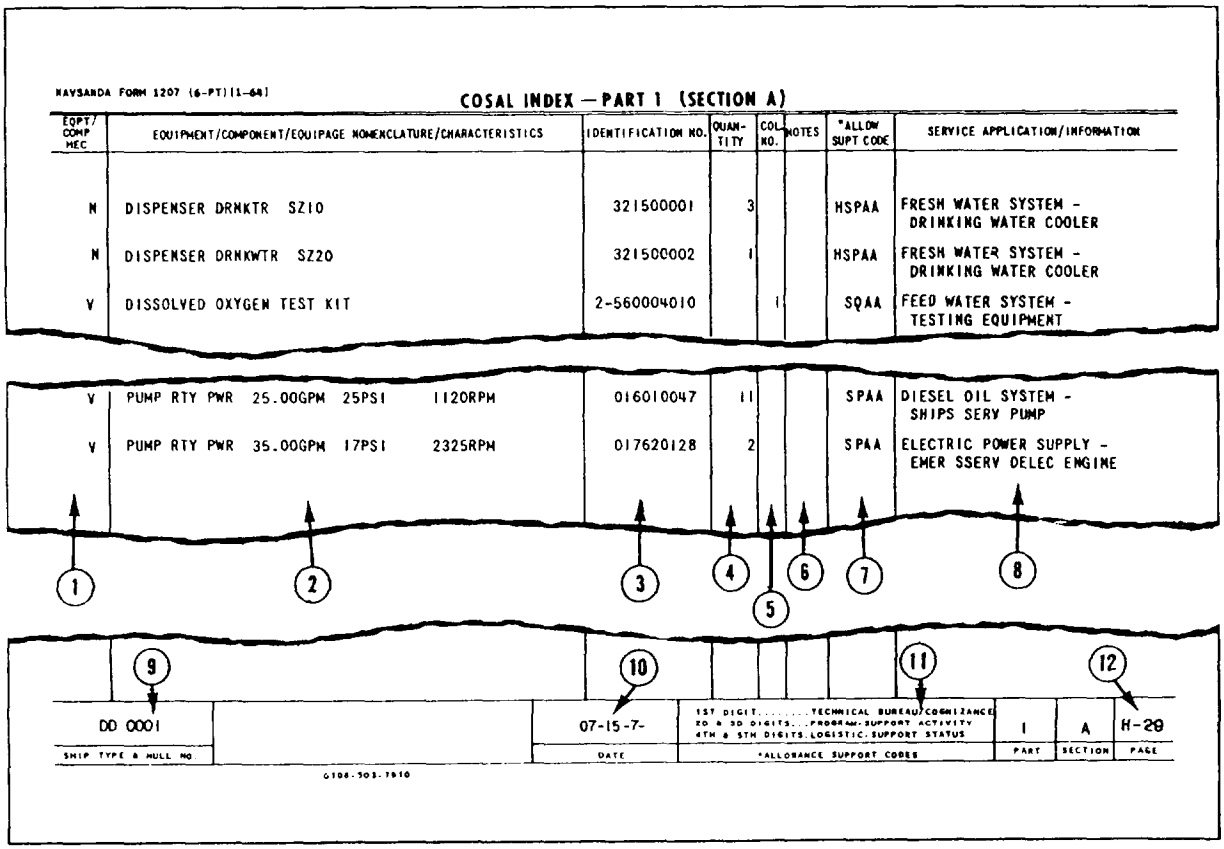


Figure 5-2.-COSAL index, part 1, section A.

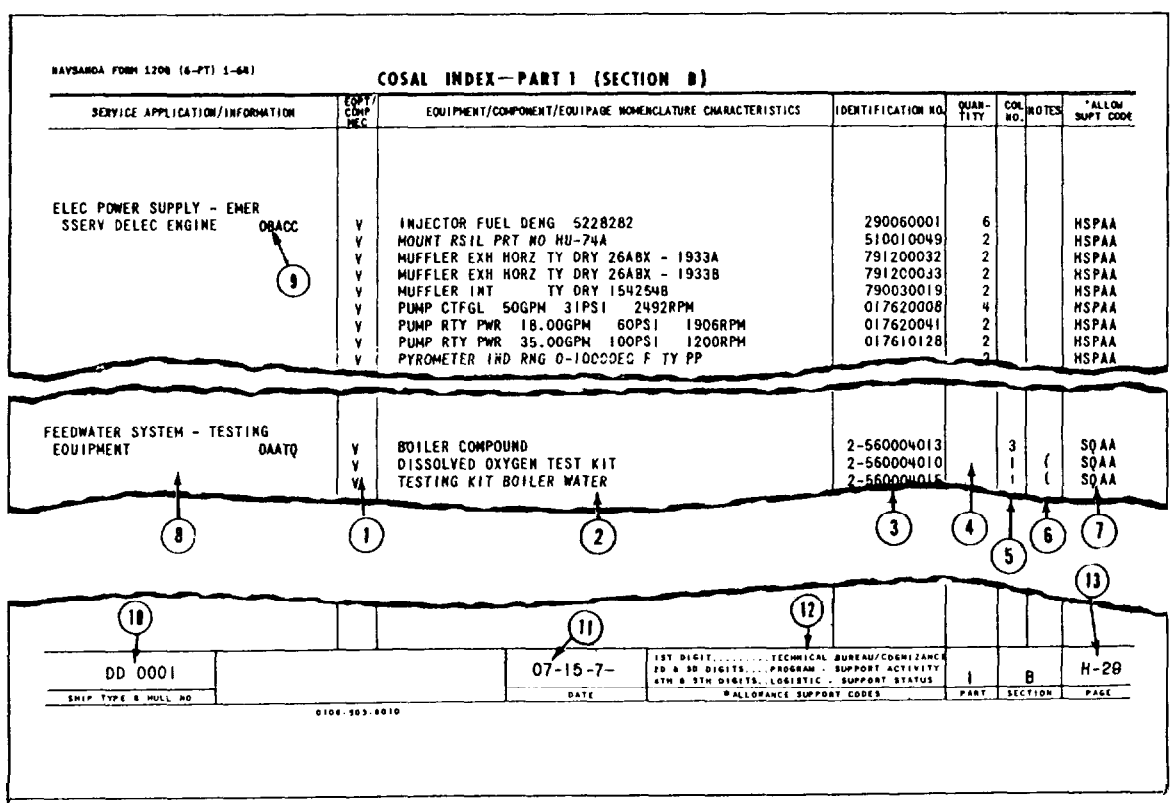


Figure 5-2.-COSAL index, part 1, section B.

8. Service application/information: The service or major shipboard function in which the equipment, component, or equipagc operates or performs a service.

9. Service code: A code to designate service application.

10. Ship type and hull number: The specific ship for which the COSAL is prepared.

11. Date: Date of preparation (may be expressed as Julian or month-day-year date).

12. Allowance Support Codes: Pertains to item 7.

13. Page: Consecutive page numbering from first to to last. Page numbers proceeded by the letter H apply to hull, mechanical, and electrical (example H-1). Page numbers preceded by Z apply to ordnance (example Z-1).

Sections C, D, and E also contain cross-indexed information of APL/AEL, EIC, and work breakdown structure (WBS). Figure 5-3 shows an example of section C, and the following list describes the contents of the columns of section C.

1. Allowance parts Iist/allowance equiflagc lists number: Number of API/AEL.

2. Application/identification activity code: Identifies the activity responsible for the supply management control or program support for equipment, component, or item of supply, and the type of allowance document to which it is related.

3. Equipment identification code: EIC of APL/AEL.

4. Work breakdown function group code: Identifies a hardware oriented breakdown of a ship's system including all subsystems to the compartment level.

5. Service code: Designates service application.

6. Work center: Designates subdivision of ship's crew assigned to accomplish maintenance requirements for specified installed equipment.

7. Component name: Noun name of APL/AEL.

8. Maintenancc index page: Coded page number of the PMS manual that indexes a set of maintenance requirement cards for a specified installed piece of ship equipment.

9. Record idcntification number: Assigned by SPCC.

10. Quantity column: Quantity of each equipment component aboard ship and the applicable column number for cquipagc.

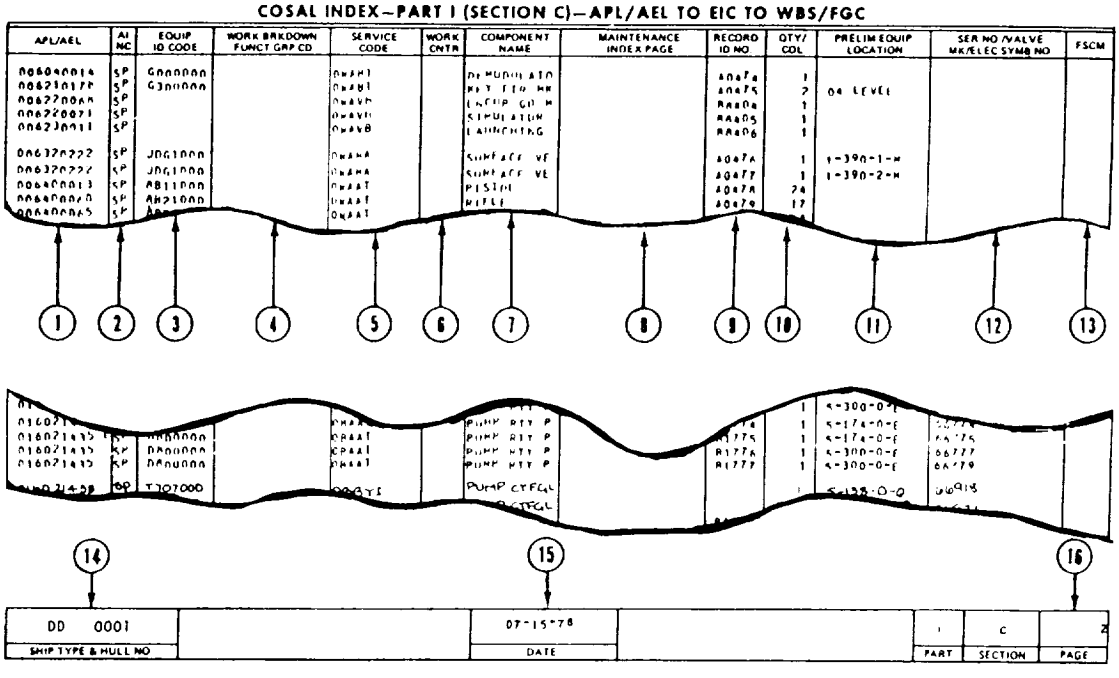


Figure 5-3.–COSAL index, part 1, section C.

11. Preliminary equipment location: Identifies location within ship of the installed component.

12. Service number/valve mark/electrical symbol number: Serial number identifies a specific unit of production. Valve mark/electrical symbol number identifies a specific valve or electrical component used within a system when multiple applications of the same component are present within the same system.

13. Federal supply code for manufacturers: Identifies a specific manufacturer for an equipment/component.

14. Ship type and hull number: The specific ship for which the COSAL is published.

15. Date: COSAL publication date.

16. Page no.: Page number of index.

ALLOWANCE PARTS LIST (APL) .– The APL is a technical document prepared for a specific item or component of equipment. It lists descriptive data and characteristics of the equipment, repair parts, and other technical and supply management information. The COSAL binder should contain an APL for every item or component of equipment on board the ship.

Each APL is assigned a nine-digit identifying number by SPCC. The first two digits identify the equipment/component category and are listed in an index in the COSAL introduction. The APLs are filed in numerical sequence in part II of the COSAL.

You may find an APL number containing a letter *P* prefix. This indicates an incomplete APL. The body of the APL usually tells why it is incomplete and the action being taken or required to complete it.

An APL will not always cover a complete equipment; refer to the section B index (fig. 5-2). The second entry is FEEDWATER SYSTEMS TESTING EQUIPMENT. This is the name of a complete system or equipment for the feedwater system test equipment. Column 2 lists the various feedwater test equipment components, each of which, in this case, has its own APL number. Therefore, the APL may cover a complete equipment or only one component of that equipment. An example of an APL page is shown in figure 5-4. The different data elements are numbered and refer to the numbers in the following list.

1. Equipment/component nomenclature/ characteristics: Name of equipment or component and brief description. This corresponds to the index entries.

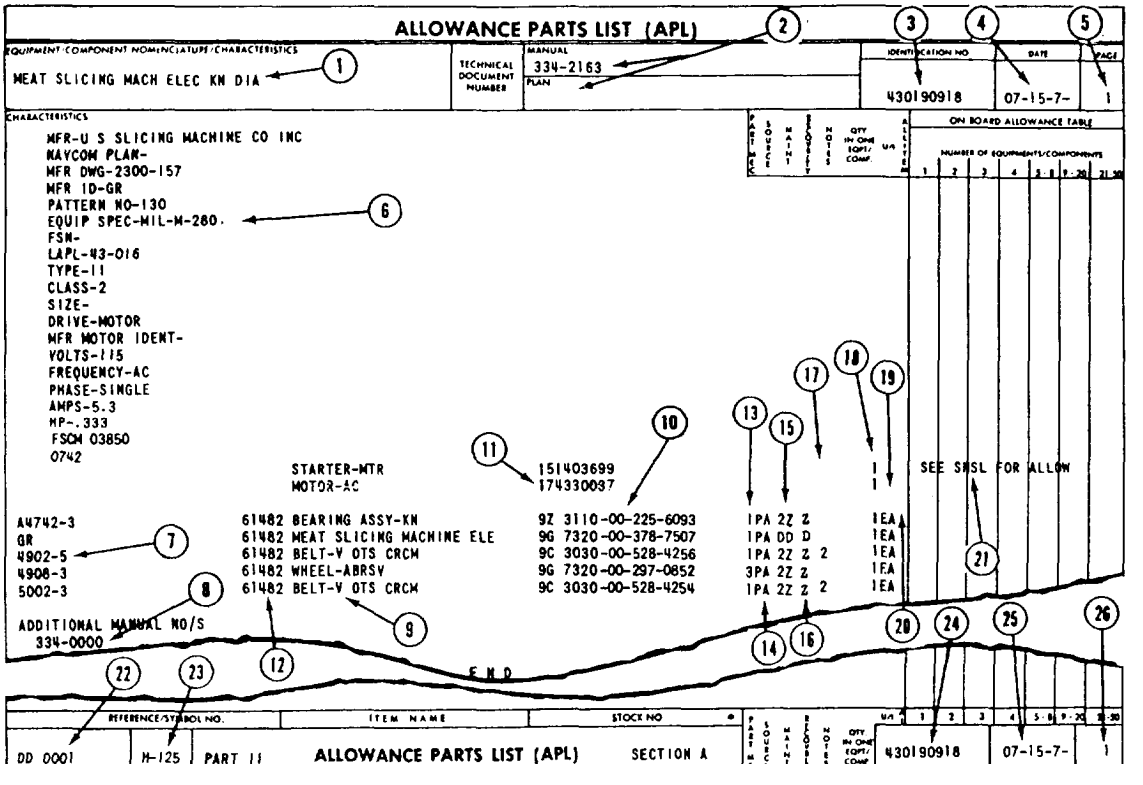


Figure 5-4.-Example of an APL.

2. Manual/Plan: The Predominant technical manual or plan number. Additional numbers are shown in item 8.

3. Identification number: Nine-digit identifying number assigned by SPCC to a particular item or component of equipment. This number is shown at the top and the bottom of the page.

4. Date: COSAL publication date.

5. Page: Consecutive numbering of all pages required to describe one equipment/component that is identified by a single APL number. This is shown at both the top and the bottom of the page. APLs have the word *END* printed in the center of the page immediately following the last line of data for that APL. This ensures that a complete APL is available.

6. Characteristics: Complete nameplate data on the equipment/component named in item 1.

7. Reference/symbol number: A number, other than an NSN, by which a part may be identified, arranged in alphanumeric sequence. It may be a manufacturer's part, drawing, piece, or circuit symbol number.

8. Additional data area: When additional technical manuals or plans apply, they are listed in this area under an appropriate caption. These are in addition to those listed in items 2 and 6.

9. Item name: The name listing of repair parts and/or related accessory components for the equipment/component covered by the APL.

10. Stock number: The FSN assigned to a specific repair part. When an FSN has not been assigned, the reference number from item 7 is repeated.

11. Accessory components applicable to a "parent equipment": These are listed on the parent APL.

12. Federal supply code for manufacturing (FSCM): This code lists the manufacturer of the part.

13. Part militarv essentiality code (PART MEC): These are two codes. They are shown on the APL and the SNSL.

    1. Failure of the part would have a major effect on the operation of the component.

    2. Failure of the part would have little effect on the operation of the component.

14. Source code: Shows the availability of repair parts and the method of procurement. These codes are defined in the introduction.

15. Maintenance code: A three-digit code that identifies the maintenance activity authorized to replace, repair, and condemn an item. Only the first digit is now used. These codes are defined in the introduction.

16. Recoverability/condemnation code: Indicates the recoverability characteristics of items removed during maintenance.

    Z - Repair Part

    D - Spare Part

17. Allowance notes code: Provides necessary and important information about individual items listed on the APL. The introduction lists and defines these codes.

18. Quantity in one equipment/component: The total population of the part within the equipment/component described by the APL.

19. Unit of issue: The smallest quantity of a stock item that can be issued.

20. Allowance item code: Reserved for future COSAL use.

21. On board allowance table: APLs published as part of an allowance list for shipboard use **will** not have quantities printed in these columns. Instead, SEE SNSL FOR ALLOW will be printed. APLs received after the regular COSAL will have the quantities shown.

22. Ship type and hull number: The specific ship for which the APL is published.

23. Page: Consecutive page numbering from first page to last page of all APL pages contained in the COSAL.

24. Identification number: Same as item 3.

25. Date: Same as item 4.

26. Page: Same as item 5.

ALLOWANCE EQUIPAGE LIST (AEL).– The AEL is similar in appearance to the APL with the following differences:

1. The APL provides maintenance and repair support for ship's equipment, and the AEL provides allowances of equipage and supplies necessary to support the ship's mission.

2. The APL provides technical information for the person maintaining a piece of equipment and tells the supply officer what repair parts are necessary in the storeroom to support it, and the AEL tells the commanding officer, supply officer, and other heads of departments what equipage and supplies are required to operate the ship.

Equipage is defined as durable items that are not consumed in use and that are essential to the ship's mission. Some examples are typewriters, portable power tools (electric drills and pneumatic hammers, life preservers, special clothing, and test sets).

AELs may be used to tailor an equipage allowance to fit the needs of a specific ship, and the commanding officer is responsible for carrying the full allowance on board. The consumable supplies listed on the AELs are not mandatory allowances, but they help the supply officer and using department decide what to order. Figure 5-5 shows a typical AEL, and the following list explains the data blocks and columns.

1. Equipage nomenclature/characteristics: Name of equipage or the mechanical/electrical system.
2. Manual/Plan: The predominate technical manual and/or plan number. Items 6 and 7 may show additional numbers.
3. Identification number: the number assigned to identify a specific AEL. The first digit followed by a (-) identifies the activity responsible for preparation and maintenance of the AEL, and the general significance of the equipage.

   0–Ordinance material

   1–Space/systems-related material

   2–Miscellaneous material

   3–Automotive, construction, and material handling equipment

   4–Flag allowance material

   5–Special project office material

   6–Special propulsion plant

   7–Portable electronic material

4, Date: COSAL publication date.

5. Page: Consecutive numbering of all pages required to desccribc a system and covered by

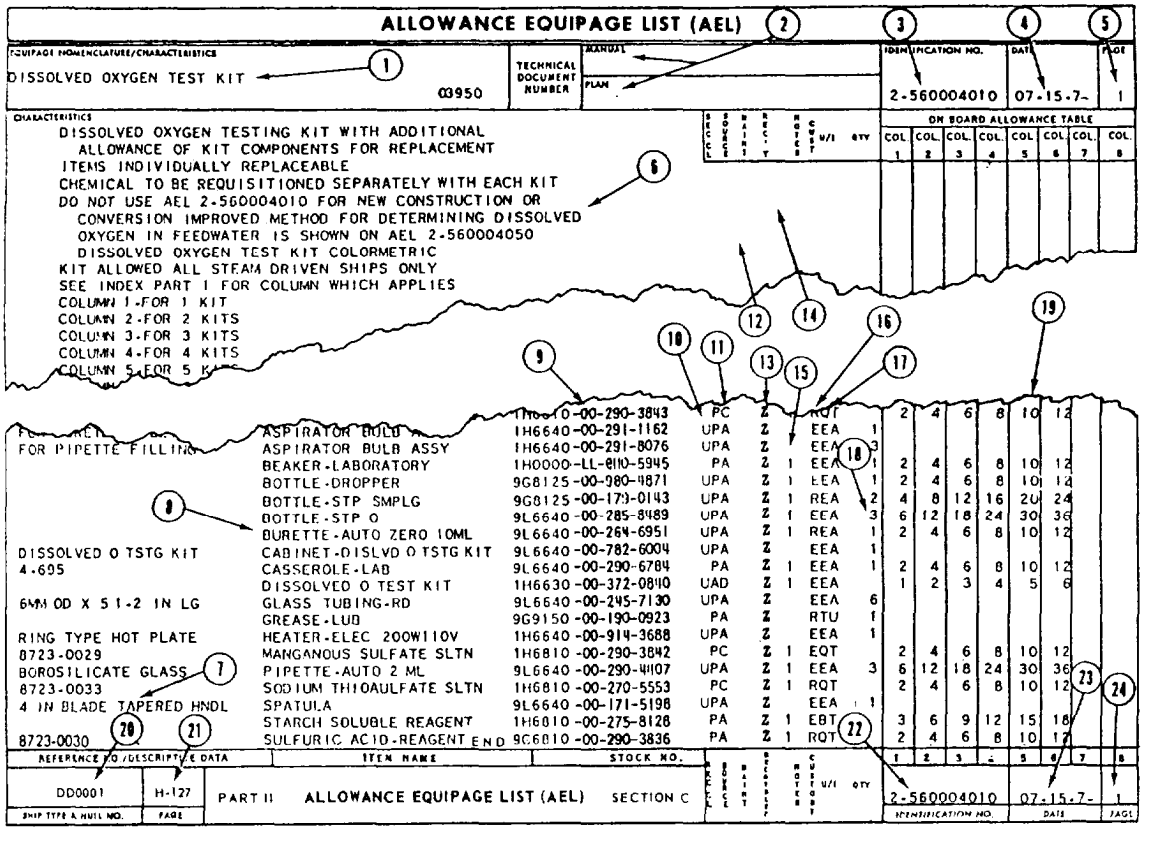


Figure 5-5.-Example of an AEL.

one identification number. This is shown at both the top and the bottom of the page. Each AEL has the word *END* printed in the center of the page immediately following the last line of data for that AEL. his ensures that a complete AEL is available.

6. Characteristics: A general description, characteristics, and/or other identifying information concerning the equipage/system named in item 1. This may include additional information as stated in the text.

7. Reference number/description data: Contains significant information, manufacturer's part numbers, reference numbers, special comments and references to other AELs, and so forth.

8. Item name: Arranged in alphabetical sequence, the name of each item; and when appropriate or applicable, additional nomenclature, dimensions, and so forth, to describe the item named.

9. Stock number: The FSN assigned to the items. When an FSN is not assigned, this position shows a manufacturer's part or catalog number or other identifying number.

10. Security classification: Reserved for future COSAL use

11. Source code: Shows the availability of the items and the method of procuremcnt. These codes are defincd in the introduction.

12. Maintenance code: Reserved for future COSAL use.

13. Recoverability code: Shows the recoverability characteristics of the item as follows:

    R–Repairable

    S–Salvageable

    C–Consumable

14. Blank: Column reserved for future COSAL USC.

15. Allowance notes codes: Provides neccessary and important information about individual items on the AEL. The introduction lists and defines these codes.

16. Custody codes: Reserved for future COSAL use.

17. Unit of issue: Thc smallest quantity of a stock item that can be issued.

18. Quantity: Normally blank See the text for additional information.

19. On board allowance table: Consist of eight numbered columns in which quantities may be shown. In certain cases, the total shipboard allowance quantity is determined by the sum total of quantities appearing in designated columns of several AELs. The COSAL index will show all applicable AEL numbers and the appropriate columns for each. The abbreviation AR (as required) may appear instead of a quantity. Information as to quantity allowed will then be contained elsewhere in the AEL.

20. Ship type and hull number: The specific ship for which the AEL is published.

21. Page: Consecutive page numbering from first page to last page of all AEL pages published in the COSAL.

22. Idcntification number: Same as item 3.

23. Date: Same as item 4.

24. Page: Same as item 5.

The Characteristics column (No. 6) may also contain information to help you determine allowance quantity, equipage type, and substitutions necessary because of differences in the installed equipment and the characteristics of the ship.

The Quantity column (No. 18) is normally blank, but when it is used, as in figure 5-5, it shows the quantity of the individual items included in the equipage item. his helps you replace items that have been used.

STOCK NUMBER SEQUENCE LIST (SNSL).– Thc SNSL is composed of two parts: storeroom items (SNSL-SRI) and operating space items (SNSL-OSI). Supply officers use the SNSL-SRI to determine what repair parts to stock in the storerooms. They use the SNSL-OSI to determine the items required or generally used to maintain engineering spaces and equipment. We said earlier that the controlled equipage allowance shown on the SNSL-OSI is mandatory, but the consumable items are listed only as a guide.

ALTERNATE NUMBER CROSS REFERENCE TO STOCK NUMBER.– The cross-reference section contains all of the reference numbers (specification, plan, catalog, part, or type number) in the APLs. It cross-references them to the current NSN, if one is assigned.

COSAL MAINTENANCE.– We said earlier that the COSAL is one of the primary publications to use

aboard ship to identify material and provide information on how much of what material to stock aboard ship. The COSAL is generated directly from the ship's configuration baseline, which lists all systems, equipments, and components aboard ship. Therefore, you must maintain the ship's configuration baseline in the ICP file from which the COSAL is generated. Other logistics support also depends on the accuracy of this configuration baseline. Some examples are technical manuals, planned maintenance, and test equipment allowances. Ship personnel are responsible for the maintenance and accuracy of the configuration baseline. OPNAVINST 4790.4 explains how to report changes in the ship's configuration baseline. Use the same instruction to report any errors in the COSAL. Some examples are APL still in COSAL for equipment that has been removed, equipment on board but not supported by an APL, nameplate data in the APL does not agree with that represented by the actual equipment configuration, and so forth.

Supply Publications

When you submit a requisition for supplies, it sets in motion a long chain of events involving procurement actions, movement of material, and maintenance of stock records. You must submit accurate data if you expect to get the supplies you requested. Refer to the following sources for accurate information.

MANAGEMENT LIST NAVY.– The ML-N is a microfiche aid that contains basic management data you need to prepare requisitions. The ML-N contains stock number changes, units of issue, unit price, and associated information (fig. 5-6).

MASTER CROSS-REFERENCE LIST (MCRL).– The MCRL is a cross-reference from a reference number (manufacturer's part number, a drawing number, design control number, and so forth) to its assigned NSN and from its NSN to its reference number. The format of the MCRL is shown in figure 5-7. The column titled Mfr. Code shows the federal stock code for manufacturers (FSCM), which is the identification numbers for each manufacturer doing business with DOD. You need the FSCM because some manufacturers will sometimes assign identical reference numbers.

MASTER REPAIRABLE ITEM LIST (MRIL).– The MRIL helps identify Navy-managed, mandatory, turn-in repairable items; turn-in activities of repairable items; and pertinent movement priority designators. The MRIL is published in microfiche by the fleet material support office (FMSO) and is distributed each month. The introduction to MRIL, NAVSUP P 4000, chapter 5, is included in microfiche in the January, April, July, and October editions of the MRIL.

AFLOAT SHOPPING GUIDE (ASG).– The ASG helps you identify items of supply not normally related to a part or reference number by relating them to an NSN. It also helps find substitutions in the general hardware area through the use of illustrations, specifications, and narrative descriptions from which you may locate the applicable NSN. Sections of the ASG are republished when the volume of changes is significant.

IDENTIFICATION LISTS (ILs).– The ILs are microfiche listings by group and class that provide item descriptions and related data required to identify or select items of supply.

Other Sources of Identification

There will be times when a repair part is not listed in an APL. This may happen when the equipment or component is not supported or when the part has been omitted. Keep in mind that an APL may cover a complete equipment or only a component of an equipment. Therefore, check the index to see if the part you need is included in another APL. For example, couplings, switches, and valves may be listed in the APLs for the components with which they are used or each may be assigned a CID number and have its own APL.

To identify a repair part in sources other than the COSAL, you must have complete information on the equipment. Several sources of this information are described in the next paragraphs.

NAMEPLATES.– One of the most important sources of information is the data shown on equipment nameplates. This may include the manufacturer's name, model or type, serial number, size or capacity, voltage, and so forth.

TECHNICAL MANUALS.– Technical manuals and instruction books published by the equipment manufacturer usually contain a complete description of the equipment as well as parts lists that relate the part to a manufacturer's part number.

BLUEPRINTS AND DRAWINGS.– Installation and maintenance blueprints and drawings also contain helpful identifying information.

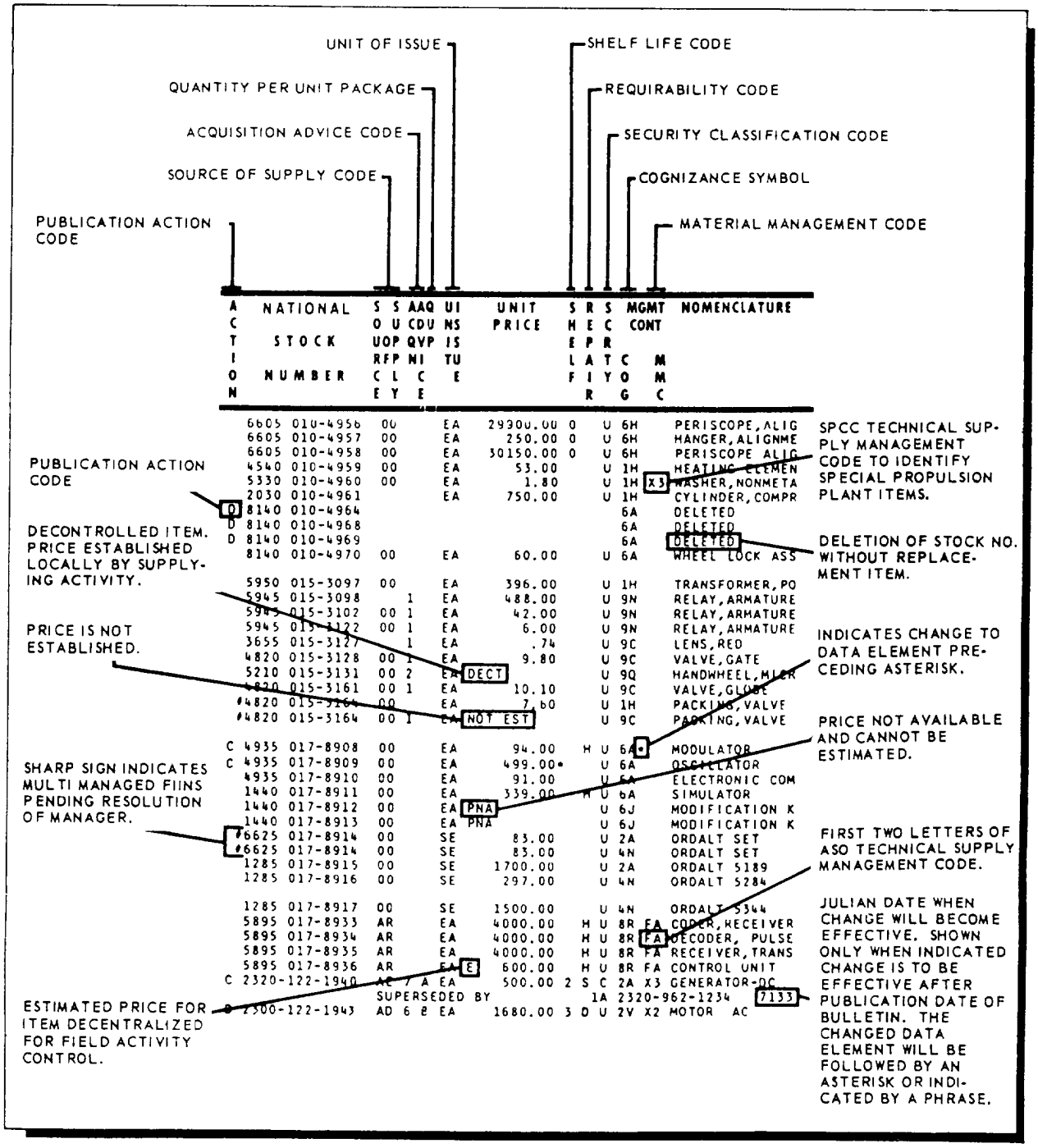
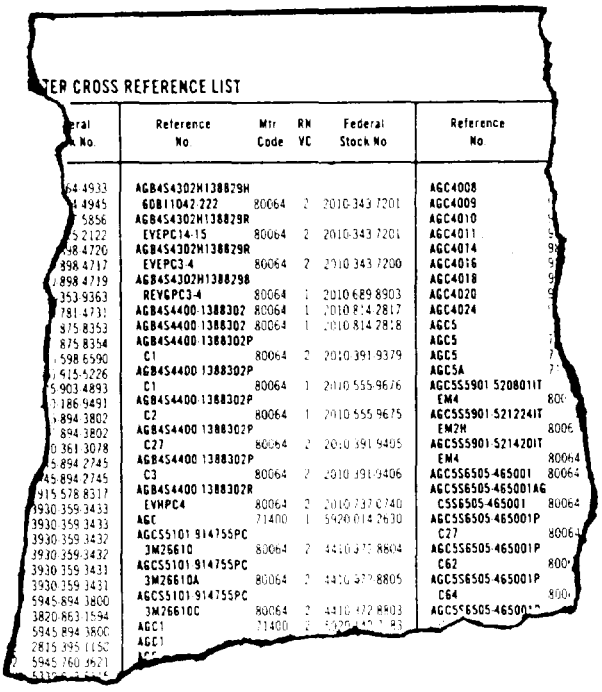


Figure 5-6.-Navy management data list (ML-N)

SUPPLY OVERHAUL

An Integrated Logistics Overhaul (ILO) is the work that is done concurrently with the shipyard overhaul. Storekeepers off-load repair parts, and they identify, inspect, inventory, repackage, and preserve them as needed. They will get any help they need from other departments, and the engineering department will probably be asked to provide one or more experienced petty officers for this purpose. A good ILO purifies the selection of repair parts carried in supply department storerooms.



TER CROSS REFERENCE LIST

eral k No.	Reference No	Mfr Code	RN VC	Federal Stock No	Reference No
64 4933	AGB4S4302H138829H				AGC4008
4 4945	6DB11042-222	80064	2	2010-343-7201	AGC4009
5856	AGB4S4302H138829R				AGC4010
5 2122	EVEPC14-15	80064	2	2010-343-7201	AGC4011
98 4720	AGB4S4302H138829R				AGC4014
898 4717	EVEPC3-4	80064	2	2010 343 7200	AGC4016
898 4719	AGB4S4302H138829B				AGC4018
353 9363	REVGPC3-4	80064	1	2010 689 8903	AGC4020
781 4731	AGB4S4400 1388302	80064	1	2010 814 2817	AGC4024
875 8353	AGB4S4400 1388302	80064	1	2010 814 2818	AGC5
875 8354	AGB4S4400 1388302P				AGC5
598 6590	C1	80064	2	2010 391 9379	AGC5
415 5226	AGB4S4400 1388302P				AGC5A
903 4893	C1	80064	1	2010 555 9676	AGC5S5901 5208011T
186 9491	AGB4S4400 1388302P				EM4
894 3802	C2	80064	1	2010 555 9675	AGC5S5901 5212241T
894 3802	AGB4S4400 1388302P				EM2H
361 3078	C27	80064	2	2010 391 9405	AGC5S5901 5214201T
894 2745	AGB4S4400 1388302P				EM4
894 2745	C3	80064	2	2010 391 9406	AGC5S6505 465001
578 8317	AGB4S4400 1388302R				AGC5S6505 465001AG
359 3433	EVHPC4	80064	2	2010 737 2740	C5S6505 465001
359 3433	AGC	71400	1	5920 014 2630	AGC5S6505 465001P
359 3432	AGC5S101 914755PC				C27
359 3432	3M26610	80064	2	4410 672 8804	AGC5S6505 465001P
359 3431	AGC5S101 914755PC				C62
359 3431	3M26610A	80064	2	4410 672 8805	AGC5S6505 465001P
894 3800	AGC5S101 914755PC				C64
863 1594	3M26610C	80064	2	4410 672 8903	AGC5S6505 465001
894 3800	AGC1	71400	2	5920 [illegible] 93	
395 1052	AGC1				
760 3621	AGC				

Figure 5-7.-Format for the master cross-reference list (MCRL).

An ILO is the work that is done during a supply availability and it begins concurrently with the shipyard overhaul. Storekeepers off-load repair parts, and they identify, inspect, inventory, repackage, and preserve them as needed. They will get any help they need from other departments, and the engineering department will probably be asked to provide one or more experienced petty officers for this purpose. A good ILO purifies the selection of repair parts carried in supply department storerooms.

If the validation does not find equipment it should find, it will delete those items from the ship's configuration, which means deletion from the COSAL and other support documents. Therefore, engineering department personnel should be sure the ILO team can locate all equipment (or document its location) that should remain in the ship's configuration, and they should certify all deleted equipment that will not be replaced.

REPAIR PARTS PROCEDURES AND PROCUREMENT

The supply department is expected to keep enough repair parts and consumables to meet the demands of the ship, and that requires cooperation from other departments. Today's Navy requires more accounting for material received and consumed, and those procedures are more complicated than they were a few years ago. The following paragraphs cover the procedures commonly used to account for repair parts. We'll discuss controlled equipage procedures later in this chapter.

ISSUES FROM SUPPLY DEPARTMENT STOREROOMS

NAVSUP form 1250 is used on all nonautomated ships for issues from supply department storerooms (ships not using electronic data processing equipment to request material and record material consumption). Automated ships use the DD form 1348 as an internal issue document.

The head of a department must authorize persons to draw routine issues of repair parts and consumables from supply. The authorization may be in a memo to the supply officer that names persons authorized to draw material. It may also be a locally developed "credit card" similar to the one shown in figure 5-8 and controlled by the head of a department. It is best to limit the number of persons authorized to draw material to keep better control of the department budget.

SPECIAL REQUIREMENTS

Most material carried on board is repair parts authorized by the COSAL or consumables stocked on the basis of past usage. Any others are special requirements and they include greater numbers of current items, or items not carried. Submit special requirements to the supply officer well ahead of the time you will need them.

USS EXAMPLE (DD-125)
The bearer is authorized to draw material from Supply Department storerooms which are to be charged to
ENGINEERING DEPARTMENT

Credit Card No._____

H P Jacobine Lt USN
Engineering Officer

Figure 5-8. –"Credit card" authorization to draw stores from supply department storeroom.

PREPARATION OF NAVSUP 1250

Personnel on nonautomated ships should submit requests for material on Single Line Item Consumption/Management Document (Manual), NAVSUP 1250. This form was developed to (1) improve stock control procedures and (2) report consumption under the Maintenance Data System (MDS) of the Navy Maintenance and Material Management (3-M) System.

As your department's representative, you may present a partially prepared NAVSUP 1250, or one that is completely prepared by supply personnel. This depends upon supply department instructions and existing conditions aboard ship. In either case, you must furnish certain information. Figure 5-9 shows a partially prepared NAVSUP 1250 containing the minimum data you must provide at the time you submit the form to Supply.

When material is received, the department representative signs for receipt on the NAVSUP 1250 and is given the yellow copy of the form.

When material is drawn from stock, the "Approved by" signature (block 30) is not required since the engineer officer has already authorized certain persons to draw material either by memo or credit card.

USE OF NAVSUP 1348-6

Some repair parts do not have NSNs, and they are not carried in the supply system. This is largely because (1) the equipment is quite old, and (2) some equipment is supplied by many different manufacturers. It is not practical to invest large sums of money in inventory that has limited use.

When you need a repair part and it has no NSN, the supply department will have to order the part with the manufacturer's part or reference number as its identification. To ensure that the supply activity can process the requisition, complete the identification data portion of the NAVSUP 1348-6 and submit it with the NAVSUP 1250. Supply then forwards the completed NAVSUP 1348-6 to the supply activity, which can cross-reference the part to an NSN, if one is assigned, or purchase it from the manufacturer. Figure 5-10 shows an example of NAVSUP 1348-6.

NOT IN STOCK/NOT CARRIED (NIsS/NC) TRANSACTIONS

We said earlier in the chapter that the storeroom cannot provide all repair parts. If an item is not carried (NC) or not in stock (NIS), the supply department uses the NAVSUP 1250 to prepare a direct turnover (DTO) requisition for the material. A DTO requisition requires an approval signature, and it requires that an urgency-of-need designator be assigned in block 3 of NAVSUP 1250. We'll discuss the urgency-of-need designator later in the chapter when we deal with priorities.

An NIS/NC request offers an opportunity to verify the accuracy of the COSAL. Block 17 of the NAVSUP 1250 must be marked to indicate whether or not the

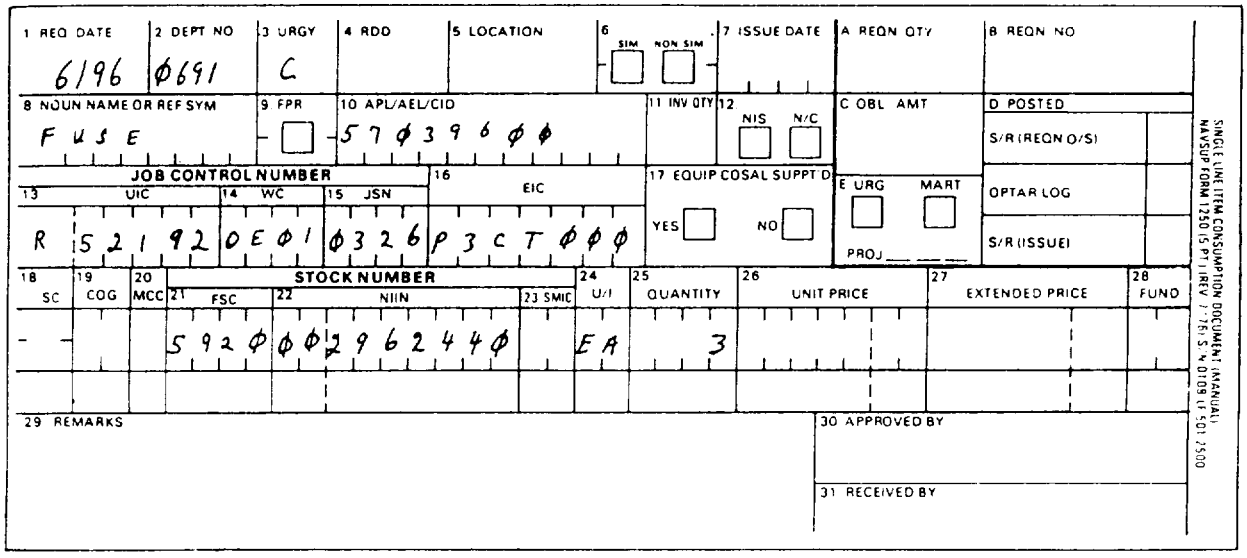
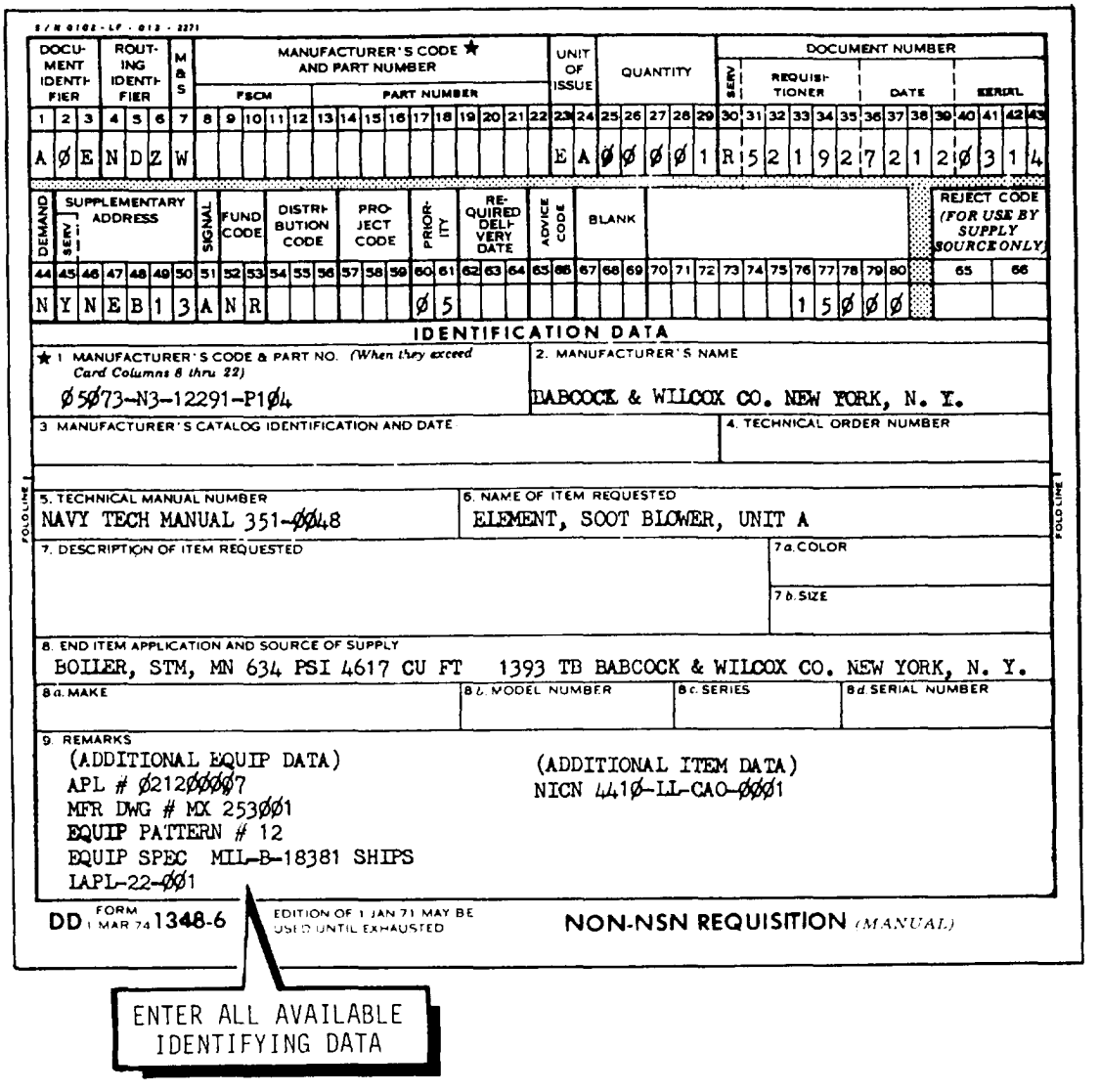


Figure 5-9. -NAVSUP form 1250 maintenance data entries for ships with nonmechanical supply records.



DOCUMENT IDENTIFIER	ROUTING IDENTIFIER	M&S	MANUFACTURER'S CODE AND PART NUMBER (FSCM / PART NUMBER)	UNIT OF ISSUE	QUANTITY	DOCUMENT NUMBER (SERV / REQUISITIONER / DATE / SERIAL)
A Ø	E N D Z	W		E A	Ø Ø Ø Ø 1	R 5 2 1 9 2 7 2 1 2 Ø 3 1 4

DEMAND	SUPPLEMENTARY ADDRESS (SERV / DETY)	SIGNAL	FUND CODE	DISTRIBUTION CODE	PROJECT CODE	PRIORITY	REQUIRED DELIVERY DATE	ADVICE CODE	BLANK	REJECT CODE (FOR USE BY SUPPLY SOURCE ONLY)
N	Y N E B 1 3	A	N R			Ø 5				1 5 Ø Ø Ø

IDENTIFICATION DATA

★ 1. MANUFACTURER'S CODE & PART NO. (When they exceed Card Columns 6 thru 22): Ø5Ø73-N3-12291-P1Ø4

2. MANUFACTURER'S NAME: BABCOCK & WILCOX CO. NEW YORK, N. Y.

3. MANUFACTURER'S CATALOG IDENTIFICATION AND DATE

4. TECHNICAL ORDER NUMBER

5. TECHNICAL MANUAL NUMBER: NAVY TECH MANUAL 351-ØØ48

6. NAME OF ITEM REQUESTED: ELEMENT, SOOT BLOWER, UNIT A

7. DESCRIPTION OF ITEM REQUESTED

7a. COLOR

7b. SIZE

8. END ITEM APPLICATION AND SOURCE OF SUPPLY: BOILER, STM, MN 634 PSI 4617 CU FT 1393 TB BABCOCK & WILCOX CO. NEW YORK, N. Y.

8a. MAKE | 8b. MODEL NUMBER | 8c. SERIES | 8d. SERIAL NUMBER

9. REMARKS

(ADDITIONAL EQUIP DATA)
APL # Ø212ØØØ7
MFR DWG # MX 253ØØ1
EQUIP PATTERN # 12
EQUIP SPEC MIL-B-18381 SHIPS
LAPL-22-ØØ1

(ADDITIONAL ITEM DATA)
NICN 4410-LL-CAO-ØØØ1

DD FORM 1 MAR 74 1348-6 | EDITION OF 1 JAN 71 MAY BE USED UNTIL EXHAUSTED | NON-NSN REQUISITION (MANUAL)

ENTER ALL AVAILABLE IDENTIFYING DATA

Figure 5-10.-Repair part technical data document, NAVSUP form 1348-6.

COSAL supports the equipment. If it does not, promptly report the full nameplate data of the equipment, its service application, and the quantity installed according to OPNAVINST 4790.4. Impress the importance of this verification upon all personnel in the engineering department who are authorized to prepare requests.

You may order NC material only for DTO and only when it is required for immediate use. You can order repair parts and consumables that are not allowed by the COSAL and/or usage ONLY if you submit an in-excess requisition via the type commander for approval. We'll discuss the criteria for in-excess and not-in-excess requisitions later in the chapter.

MILITARY STANDARD REQUISITIONING AND ISSUE PROCEDURE (MILSTRIP)

MILSTRIP provides the forms and procedures used to requisition material. The Uniform Material Movement and Issue Priority System (UMMIPS) provides the method used to assign priorities for the issue and movement of that material; we'll discuss UMMIPS later in this chapter.

MILSTRIP permits processing of requisitions by electric accounting machine/automatic data processing (EAM/ADP). Much of the information formerly written out is now converted to codes that provide a common

language between all of the armed forces and the General Services Administration.

MILSTRIP REQUISITIONS

The ship's supply department submits MILSTRIP requisitions on DD form 1348 for nonautomated ships and on DD form 1348m for automated ships. Material received from a supply activity is invoiced on the DD form 1348-1 (Release/Receipt Document). The supply department prepares the DD form 1348 for all material requirements with the exception of ammunition, medical supplies, and Marine Corps supplies, which are ordered by the department concerned, and bulk fuel which is ordered on DD form 1149. We'll discuss fuel oil requisitions later in this chapter. You should submit your requests on NAVSUP form 1250 which will be the source document for DD form 1348.

When the supply department receives a NAVSUP form 1250 and determines it is for NIS or NC material, they will return the yellow copy to you to notify you to prepare a DTO requisition. After they have received your NAVSUP 1250 for the DTO requisition, they will prepare DD form 1348. Write the requisition number in block B of NAVSUP 1250, and return the pink copy of NAVSUP 1250 to you with the weekly budget report.

Bearer Requisition

When your ship is in port, you can use a bearer, or "walk-through" requisition to get urgently needed material that is available locally. After supply personnel prepare the DD form 1348, take it to the supply activity, walk it through the processing steps, and receive the material. This system is restricted to higher priorities; use it only when necessary.

Message and Defense Automated Addressing System (DAAS) Requisition

When air mail will not move a requisition quickly enough, you may send it by naval message or DAAS. The decision must be based on the location of the ship (deployed or in port), location of the material (local or distant supply activity), and urgency.

Requisition Status and Follow-up

Status refers to the movement, or lack of movement, of a requisition at the supply activity. There are different types of status, but the most common is exception status. This means the supply activity advises the requisitioner of any action taken except when they supply and ship the material. This includes actions such as back-order, passing the requisition to another supply activity, NSN change, NSN substitution, and so forth. If you need to know the complete status on a high priority requirement, ask the supply officer to use the appropriate code on the requisition. You may be notified of status via a DD form 1348, DAAS, message, or speedletter. The status report is normally filed with the requisition copy in the outstanding material file in the supply office. Since the requisition number is entered on the pink copy of the NAVSUP 1250, you can easily determine the status of a requisition. When you have not received either status or material by the priority delivery date, submit a follow-up to the last known holder of the requisition.

In-Excess Requisitions

The supply officer submits all in-excess requisitions for approval at least to the type commander, and for certain designated items, to the cognizant bureau or material command. The commanding officer delegates responsibility to the supply officer to decide what requisitions are in-excess, that they are so identified, and that they are approved by the appropriate higher authority. All department heads share this responsibility since they must justify any requisitions considered in-excess. Requisitions for the following material are considered in-excess:

- Controlled equipage not on the ship's allowance list
- Controlled equipage on the allowance list but in greater quantities than allowed
- Nonstandard consumable supplies when similar items are available in the supply system
- Repair parts not listed in ship's allowance for which a requirement cannot be justified

Not In-Excess Requisitions

Requisitions for the following material are considered as not in excess:

- Controlled equipage on the allowance list not in a greater quantity than neccessary to bring the amount on order and on hand up to full allowance
- Repair parts listed with or without quantities in the ship's allowance for which a requirement can be justified above the quantity fixed by the allowance

- Consumable supplies listed in the Navy stock lists, applicable allowance lists, or other consumable supplies except nonstandard items
- Material other than consumable supplies required for immediate expenditure for repairs or alterations or to replace material so expended
- Services that cannot be accomplished by ship's force
- Equipage items that are not controlled equipage

Fuel Requisitions

The supply officer procures fuels, but the engineer officer determines fuel requirements. The engineer officer tells the supply officer how much fuel is required and when it should be delivered. Fuel is normally procured from one of the following sources:

- Fleet oilers, station tankers, and yard oilers
- Fuel depots and annexes
- Commercial shore installations, both foreign and domestic, under Defense Petroleum Supply Center (DPSC) and local contracts
- Other Navy combatant or service force ships
- Shore installations of other services or agencies

In an emergency, the supply officer may procure fuel from United States commercial ships, foreign naval ships, foreign naval shore establishments, foreign commercial ships, or foreign commercial shore establishments not currently under DPSC or local Navy contracts.

UNIFORM MATERIAL MOVEMENT AND ISSUE PRIORITY SYSTEM (UMMIPS)

UMMIPS ensures that material requests are processed according to the MILITARY IMPORTANCE of the requiring activity and the URGENCY of that activity's needs.

In the movement and issue of material it is necessary to have a common basis to decide priorities for transportation, warehousing, introduction of requisitions for processing, and material assets. UMMIPS provides this common basis through a series of two-digit issue priority designators, which are shown in figure 5-11.

Material requests submitted to supply that are filled from storeroom stock do not require a priority designator. However, all requisitions prepared by the supply department must have a priority designator assigned. The priority designator is derived from two factors; one that classifies the military importance of the ship and the second that rates the urgency of need. The military importance factor is called the force/activity designator (FAD).

FAD is a Roman numeral (I through V) assigned by the Secretary of Defense (SECDEF), the Joint Chiefs of Staff (JCS), of a DOD component to indicate the mission essentiality of a unit, organization, installation, project, or program to meet national objectives. The FAD is based on a DOD determination of activity/mission importance or essentiality.

1. FAD I: Assigned by SECDEF, upon recommendation of JCS, for
   a. U.S. Armed Forces in combat
   b. Programs approved for national priority by the President per BRICKBAT category of the latest DOD Master Urgency List
   c. Declared emergencies
   d. Other units or projects specifically designated
2. FAD II: May be assigned by fleet commanders-in-chief; Commander, Military Sealift Command; commanders of Navy components of unified or specified commands; Oceanographer of the Navy; Commander, Naval Security Group Command; Commander, Naval Intelligence Command; Chief of Naval Education and Training; Chief of Naval Reserve; and Commander, Naval Telecommunications Command.
   a. U.S. combat, combat-ready, and direct combat support forces deployed to or operating outside the 50 states and adjacent waters and other areas as maybe designated by the JCS
   b. Forces being maintained in a state of combat readiness for immediate (within 24 hours) employment or deployment
   c. DOD component programs and projects vital to defense of national objectives that are comparable
   d. Specified combat-ready and direct combat support forces of foreign countries with comparable importance to U.S. forces cited in items a. and b.

Urgency of need designator (condensed description)	Force/activity designator				
	I	II	III	IV	V
	Priority designator				
Designator A Emergency material requirements for primary weapons and equipment for immediate use. material requirements to eliminate a work stoppage on controlling jobs in manufacture, modification, or repair of primary weapon or equipment (C-3/C-4 CASREP). Material to correct a C-2 CASREP when delayed receipt of material previously requisitioned under UND "B" is causing further degradation of mission performance. Material requirements to eliminate imminent work stoppage or C-3/C-4 CASREP for planned maintenance on equipment essential to primary missions when work stoppage or C-3/C-4 will occur (ANCORS).	01	02	03	07	08
Designator B Material requirements for immediate use or for known requirements in the immediate future, the lack of which impairs the operational capability of the force/activity concerned (C-2 CASREP/C-2 ANCORS). Preclude anticipated work stoppage on mission essential equipment; replace/repair auxiliary equipment. Replace allowance list material required to support mission essential equipment.	04	05	06	09	10
Designator C Material requirments to meet scheduled deployments. Material needed to repair/replace administrative or collateral equipment or systems not immediately essential to operational mission. Material required for scheduled maintenance or material required for routine stock replenishment.	11	12	13	14	15

Figure 5-11.-Issue priority designators.

3. FAD III. May be assigned by the commands authorized to assign FAD II, and by any other command that is designated a major claimant for budget purposes. FAD III is assigned to

   a. All other U.S. combat-ready and direct support forces outside CONUS.

   b. CONUS forces (including reserve forces) maintained in a state of readiness for deployment to combat. (The Chief of Naval Reserve will verify the status of reserve force squadrons prior to assignment of FAD III to ensure that such assignment is compatible with contigency plans.)

   c. Component programs and projects of comparable importance with elements in item a. and b.

   d. Specified combat-ready and direct combat support forces of foreign countries that are of comparable importance with force specified in items a. and b.

   e. CONUS industrial and intermediate maintenance/repair activities that provide direct logistic support for forces being maintained in a state of readiness for deployment to combat.

   f. New construction/modernization ships within 60 days of builder's trials. FAD II can be assigned only in specific cases if approved by the Chief of Naval Operations when it is anticipated that the ship will come under the operational command of the SIXTH or SEVENTH Fleets or equivalent operational assignments within 90 days of its commissioning.

4. FAD IV. May be assigned by any command authorized to assign FAD II or III and is assigned to

   a. U.S. forces being maintained in a state of combat readiness for deployment to combat.

   b. DOD component programs and projects that are of comparable importance with item a.

   c. Specified combat-ready and direct combat support forces of foreign countries with comparable importance to U.S. forces specified in item a.

   d. CONUS industrial and intermediate/repair maintenance activities providing direct logistic support for forces being maintained in a state of readiness for deployment to combat.

5. FAD V. May be assigned by any command authorized to assign FAD II, III, or IV, and is assigned to

   a. All other U.S. forces or activities

   b. Approved programs of DOD components not otherwise designated

6. Authorized use of a higher FAD.

   a. To facilitate optimum material readiness, OPNAVINST 4616.1 series authorizes the assumption of the authorized higher FAD a maximum of 90 days prior to scheduled deployment outside CONUS of other authorized elevation from a lower to higher FAD.

   b. Activities performing work on ships during restricted availabilities are authorized to use the FAD of the ship being worked on when ordering material for that work.

CONTROLLED EQUIPAGE PROCEDURES

Controlled equipage requires greater management control because the items are expensive, vulnerable to theft, and/or essential to the ship's mission. Controlled equipage is listed in appendix 11 of NAVSUP Publication 485(P-485). The department head must sign for custody of all items marked by an asterisk in the list of equipage items.

The COSAL SNSL-OSI contains allowances of controlled equipage used by the engineering department. These sources provide the allowance authority, nomenclature, NSN, and allowed quantity for a ship.

EQUIPAGE STOCK CARD AND CUSTODY RECORD

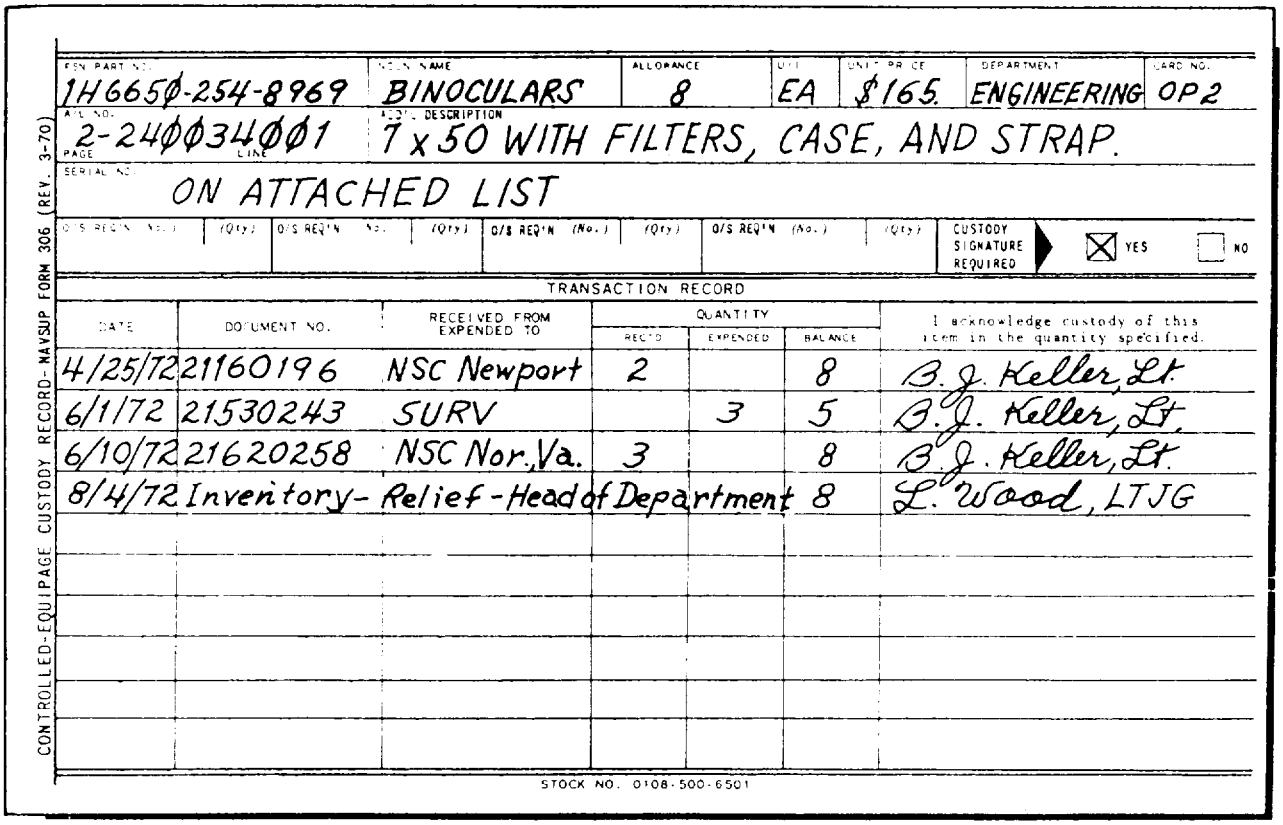
The Equipage Stock Card and Custody Record, NAVSUP 306, serves a dual purpose as a custody record and as an inventory control document. Its use is mandatory for all controlled equipage.

Figure 5-12 shows an example of a properly prepared NAVSUP 306 with representative entries. The form is prepared in duplicate. The supply officer keeps the original, and the custodial department keeps the copy. Supply is responsible for preparing the form, but the following guidelines may help you understand its purpose and use.

- Items requiring custody signature are identified on the NAVSUP 306.
- The responsible department is identified on each card.
- When two or more departments are responsible for individual pieces of equipment listed on one line of the allowance list, each department gets a card showing the numerical allowance for which the department is responsible.
- The cards are numbered consecutively for each department.
- Each card shows the numerical allowance for each item as shown by the allowance list. When responsibility is divided, the total of all cards must equal the total allowance.
- The card shows the NSN and unit of issue, and the unit price if it is available.
- The card must show the allowance authority.
- The card must contain a complete description of the item, including serial numbers if the item is so identified.

Keep the department copy of the NAVSUP 306 current by posting all equipment receipts and expenditures as they occur. Each time supply personnel post additional transactions to the original NAVSUP 306, the department head will attest to the new balance by signing for items that require a signature.

The custody records within the department are optional, but the copy of the NAVSUP 306 provides a



CONTROLLED-EQUIPAGE CUSTODY RECORD-NAVSUP FORM 306 (REV. 3-70)

FSN PART NO.	NOUN NAME	ALLOWANCE	UNIT	UNIT PRICE	DEPARTMENT	CARD NO.
1H665Ø-254-8969	BINOCULARS	8	EA	$165.	ENGINEERING	OP2

ADL NO. 2-24ØØ34ØØ1 PAGE LINE

NOUN DESCRIPTION: 7 x 50 WITH FILTERS, CASE, AND STRAP.

SERIAL NO.: ON ATTACHED LIST

O/S REQ'N (No.)	(Qty)	O/S REQ'N (No.)	(Qty)	O/S REQ'N (No.)	(Qty)	O/S REQ'N (No.)	(Qty)	CUSTODY SIGNATURE REQUIRED	☒ YES	☐ NO

TRANSACTION RECORD

DATE	DOCUMENT NO.	RECEIVED FROM EXPENDED TO	QUANTITY RECD	QUANTITY EXPENDED	QUANTITY BALANCE	I acknowledge custody of this item in the quantity specified.
4/25/72	21160196	NSC Newport	2		8	B. J. Keller, Lt.
6/1/72	21530243	SURV		3	5	B. J. Keller, Lt.
6/10/72	21620258	NSC Nor. Va.	3		8	B. J. Keller, Lt.
8/4/72	Inventory- Relief - Head of Department				8	L. Wood, LTJG

STOCK NO. 0108-500-6501

Figure 5-12.-NAVSUP form 306.

ready-made system where the division officer or petty officer who has physical control of the item can sign the card. When those persons issue controlled equipage to others temporarily; they should ask for memorandum receipts.

INVENTORY OF CONTROLLED EQUIPAGE

All items of controlled equipage must be inventoried annually during March. However, if the annual inventory, or an inventory for any of the reasons shown in the following list, is held in the 6 months period preceding March, it will satisfy the annual inventory requirement.

- The ship is commissioned, inactivated, or reactivated.
- A department head is relieved and signs for department equipage.
- At a change of command, the relieving officer may ask for an inventory.

Department heads are responsible for the annual inventory of those items for which they have custody, and they must complete the inventory within 30 days after they start it. The duplicates of NAVSUP 306 provide a basis for the inventory. The inventorying officer should take the following steps:

1. See each item and inspect it for serviceability.
2. Check item serial numbers against the serial numbers recorded on the custody cards.
3. As each item is inventoried, enter the date, quantity, and signature on the reverse of the custody card.
4. During or immediately after the inventory is complete, transcribe the inventory record to the original NAVSUP 306 held by the supply officer.
5. Prepare survey requests for any missing or unserviceable equipage items. The survey requests are very important because the supply officer uses them to prepare a list of controlled equipage deficiencies and submits it to the type commander. This deficiency list is used to fund the replacement of unserviceable or missing controlled equipage.

When the engineer officer is relieved, the relieving and relieved officers should conduct a joint inventory of controlled equipage in the engineering department and complete it before the relieved officer departs.They should prepare a relieving letter stating that they completed the joint inventory, prepared surveys for shortages and unserviceable items, and submitted requests to replace those items. If they cannot take a joint inventory, the relieving officer must complete the inventory as soon as possible after assuming the duties. The relieving officer should then submit a relieving letter showing surveys for shortages and unserviceable items, and requests for replacements. In either case, a copy of the letter should go to the supply officer.

If you find excess controlled equipage during inventory, report it to the supply officer, who may transfer it to other departments or report it to the type commander for disposition.

EXPENDITURE OF MATERIAL

Material is expended when it is issued from supply storerooms, when it is transferred to another ship or station, or when it is surveyed. We have already discussed issues, so we'll cover transfers and surveys in the following paragraphs.

TRANSFERS

You may not transfer stores or other government material from a naval ship without the approval of the commanding officer. The commanding officer may authorize the supply officer to approve transfers. In that case, the supply officer must authorize the transfer of any material from the ship. The supply officer is responsible for preparation of transfer documents and compliance with transfer procedures contained in current instructions.

The engineer officer must report to the supply officer any excess equipment, equipage, or supplies in the engineering department. The supply officer will normally seek the advice of the engineer officer before transferring from supply storerooms any material that is used in engineering spaces.

One of the more common types of transfer is for emergency repair parts for deployed ships. When you have the material another ship needs, you should decide whether to make the transfer based on your past usage, how essential the material is to the equipment it supports, the time needed to get a replacement, and the judgment of the engineer and supply officers. You should make the transfer, if possible, since it helps another ship get its equipment back into operation in the least amount of time. It is also useful to have a reputation as a ship that will help out–you have a better chance of getting help when you need it.

SURVEYS

A survey is required when Navy property is lost, damaged, or destroyed, except in incoming shipments. A survey determines responsibility and fixes the actual loss to the government. Always try to get to the truth of responsibility. Thoroughly research the facts and do it as soon as possible. Do not limit your investigation to verifying the statements of interested parties; make it broad enough to ensure that the interests of the government as well as the rights of the individual(s) or Navy activities are fully protected. A good review will prove or refute statements of interested persons and place responsibility where it belongs.

When you first discover government property that has been lost, damaged, or destroyed, the department head or division officer should determine if there is evidence of negligence, willful misconduct, or deliberate unauthorized use. If there is no such evidence, the responsible officer will initiate a Government Property Lost or Damaged (GPLD) Survey Certificate, DD Form 2090. This form relieves individuals of responsibility and adjusts records to show the new status of the material.

If the review does show evidence of negligence, willful misconduct, or unauthorized use, the responsible officer will initiate a Report of Survey, DD form 200. This form will also be used whenever the receiving authority does not approve the DD form 2090, or if the commanding officer or higher authority so directs.

The appointing authority appoints the surveying officer. The appointing authority is usually the commanding officer, designee, or officer in the chain of command with jurisdiction over the individual who has custodial responsibility for the property to be surveyed. The surveying officer will usually be a commissioned officer, warrant officer, or petty officer in grades E-8 or E-9.

The commanding officer may appoint a survey board that will investigate reports of survey. This board consolidates the functions of the appointing authority and the survey officer, and it relieves commanding officers of the burdens involved in the report of survey procedures. One member of the board will be designated as appointing authority. Survey boards furnish advice to

the commanding officer and conduct investigations on surveys submitted to him for action. A survey board consists of two or more persons, usually commissioned or warrant officers.

The surveying officer or survey board investigates the material or the circumstances under which material is missing. The investigators try to determine the condition of the material at the time of survey, and fix the cause and responsibility for that condition. They also note when they could not fix responsibility or when the material wore out through normal use.

For more detailed information about the survey process, see your ship's survey instructions and chapter 5 of NAVSUP P-485, which is available in the supply office.

FINANCIAL CONTROL OF SHIP'S OPERATING TARGET (OPTAR)

In this section, we'll explain briefly how the Navy is funded and the method it uses to finance the day-to-day operation of ships.

With few exceptions, such as shipbuilding and alteration, research and development, the Navy is funded by annual appropriations included in the Defense Appropriations Act passed each year by Congress. The money is then appropriated by Congress and the Navy assigns it to the various systems commands and bureaus that administer them. As an example, appropriation 17-1804 is for operations and maintenance of ships. NAVSEA administers it and distributes it through the fleet commanders. The fleet commanders then grant operating budgets to each type commander under their command.

The type commanders grant obligational authority to the ships within their commands so they can procure supplies and equipage to meet the ship's OPTAR. The fleet accounting office performs the accounting required for the operating budget. But the supply officer of each ship must maintain records to help the commanding officer know the status and ensure the best use of OPTAR funds. The TYCOM budgets for the initial grant and establishes the method each ship uses to request and justify OPTAR funds.

We often use two terms when we speak about supply operations: *Navy Stock Fund* (NSF) and Navy *Stock Account* (NSA). The following paragraphs contain a brief explanation of those terms:

NSF is a revolving fund used to procure material. After procurement, the material is held in an inventory account, NSA. The NSA inventory is stored at ashore supply activities and on some supply ships. The relationship of the NSF and NSA is shown in figure 5-13.

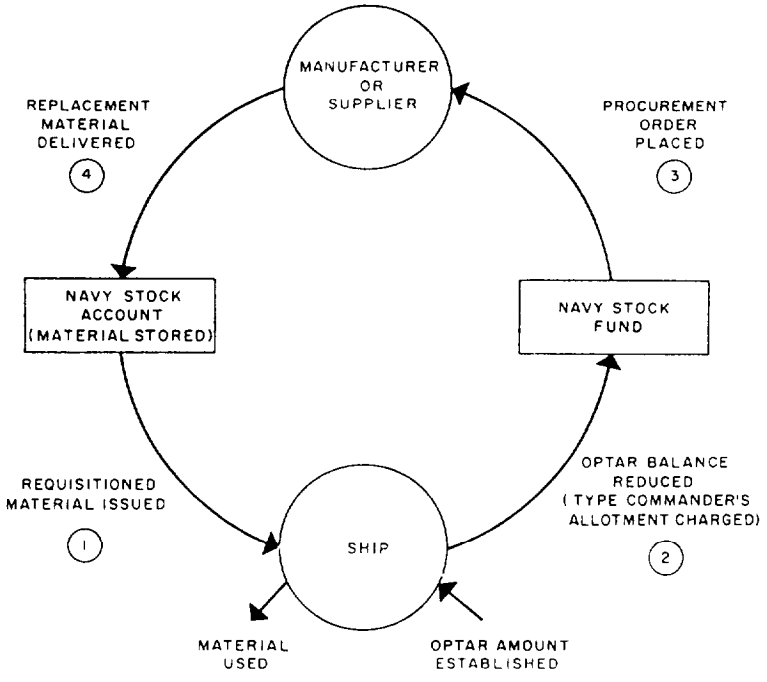


Figure 5-13.-Relationship of the Navy Stock Fund (NSF) and the Navy Stock Account (NSA).

When a ship submits a requisition and the material is issued, the NSA is reduced. The cost of the issue is charged to the ship's OPTAR and credited to the NSF, which may then use the money to procure replacement inventory.

The Appropriations Purchases Account (APA) is another inventory account that is used extensively. APA material has been purchased with appropriated finds and is held in store awaiting issue. It is usually used for major items such as NAVSEA controlled test equipment. When this material is requisitioned by the ship, the OPTAR is not reduced since the material has already been charged to end use. A statistical charge is made to help show the total operating cost within the Navy.

FUND CODES

Under current accounting procedures, operating costs are accumulated according to the purpose or type of expenditure and are identified by fund codes. The type commander designates the fund codes each ship may use and the circumstances under which they may be used. Generally, those fund codes identify expenditures for equipage, repair parts, consumables, and services. The OPTAR grant may specify limits for each of these categories. Assign fund codes carefully on the NAVSUP 1250 (discussed earlier) to prevent incorrect changes to these categories.

DEPARTMENTAL BUDGETS

Commanding officers distribute their OPTAR funds in different ways, but one of the most effective ways is to assign department budgets. When departments have budgets, the supply officer maintains budget records with the OPTAR funds records. The supply officer makes 10-day reports to the commanding officer on the status of the OPTAR funds and the department budgets, with a copy to each department. The pink copy of each NAVSUP 1250, which has been processed by supply and charged to the engineering department budget during the preceding week, is included with the departmental copy of the budget report. This helps the engineer officer reconcile the department record with supply records.

Engineer officers may or may not keep department budget or expense records. If not, they will normally depend on the periodic reports of expenditures and balances issued by the supply officer. However, departmental records can be quite useful. For one reason, Navy directives call for periodic validation of outstanding requisitions to justify the continued demand. You'll need accurate records of those requisitions when the time comes. Figure 5-14 illustrates one type of record used to control department spending.

ENGINEERING DEPARTMENT
EXPENDITURE RECORD
First Quarter
Fiscal 19–

Date	Dept. Request Number	Supply Dept. Requisition Number	Estimated Cost	Actual Cost	Difference	Department OPTAR Balance
7-1	1st QTR					$4,000.00
7-2	0001	9184-1218	360.00			3,640.00
7-3	0002		15.40	15.40		3,624.60
7-5	INVOICE	9184-1218		290.00	-70.00	3,694.60
7-5	0003	9187-1242	125.00			3,569.60
7-5	0004		5.00	5.00		3,564.60
7-10	0008		4.55	4.55		3,428.70
7-10	0009		10.15	10.15		3,424.15
7-11	INVOICE	9187-1242		130.00	+ 5.00	3,419.15

Figure 5-14.-A sample expenditure record for the engineering department.

SUPPLY PETTY OFFICER'S RECORDS

Engineering department supply petty officers in the various work centers keep records of supplies requested and received. These records are important sources of information for the work center and for the entire engineering department. A little extra work at the beginning can save a lot of work, confusion, and frustration later. This is especially true when it prevents the embarrassment of either wasting money on parts no longer needed or of waiting a long time for needed parts only to find out later that they were not properly ordered, or were ordered in insufficient quantity. Therefore, good departmental supply petty officer records plus timely coordination with the supply department can help ensure operational readiness through the best use of supply funds. Figure 5-15 shows a sample of the proper entries in the supply petty officer's records, and the following list explains those entries based on numbers keyed to the supply petty officer's records.

1. Request date: The Julian date on which the issue request is submitted (from block 1 of form 1250). This block is not completed on form 1250 until it is actually turned in to the supply department.
2. Department number: The internal departmental control number for specific identification of the issue request, when wanted (from block 2 of form 1250). You should use this block to provide better document control and identification. It has a ready serialized reference number for a quick location of a specific document in the supply petty officer's records.
3. Noun name: The noun name or reference symbol number of the requested item (from block 8 of form 1250). Use the same terminology as on form 1250 to eliminate confusion.
4. National item identification number: The stock number (from block 22 of form 1250). This block provides the only positive identification of the actual material requested.
5. Unit of issue: The unit of issue (from block 24

① REQ DATE	② DEPT NO	③ NOUN NAME	④ NIIN	⑤ U/I	⑥ QTY	⑦ EXT PRICE	⑧ WC	⑨ JSN	⑩ REQN NO	⑪ REQN QTY	⑫ STATUS/REMARKS	⑬ QTY REC'D	⑭ DATE REC'D	⑮ COMP
1196	0691	FUSE	00-296-2440	EA	2	1.40	01	0326	1196-3565	2	ESO 1245	1 1	1248 1196	✓

Figure 5-15.–Sample supply petty officer's record.

6. Quantity: The quantity required (from block 25 of form 1250).

7. Extended price: The extended price (unit price times quantity) (from block 27 of form 1250).

8. Work center: The work center code (from block 14 of form 1250).

9. Job sequence number (JSN): The job sequence number, with the work center code, identifies a specific or nonspecific maintenance action (from block 15 of form 1250).

10. Requisition number: The requisition number (Julian date and serial number) when procurement is required. This occurs whenever the requested material is NC or the quantity issued is less than the quantity requested. The requisition number is obtained from block B of the pink copy of form 1250 returned to the department head every 10 days with the departmental report. This requisition number is the key identifier of the material procurement action. Use it when you contact supply for status or for any other reason regarding this material-supply office procurement tiles are arranged in requisition number order.

11. Requisition quantity: The requisition quantity shows the quantity of the material being procured by the ship. Take this data from block A of the pink copy of form 1250. This allows the department to perform a very important check. If the material was NC, the requisition quantity should be equal to the quantity originally requested. If partial issue was made, the requisition quantity will normally be greater than the outstanding balance since the supply department is replenishing its stock as well as meeting the department's outstanding demand. If the material is completely NIS, the requisition quantity should be at least equal to the quantity requested (it may occasionally be greater because of losses by inventory, and so forth. If the quantity issued (if any) plus the requisition quantity is less than the quantity requested, the department should check with the supply department.

12. Status/remarks: The work center should use this column for information that does not fit into the other columns.

13. Quantity received: Use this column to show the quantity received as a result of this request. There may be only one entry (equal to the amount requested) if the total quantity was issued from ship's stock, or if the total quantity was requisitioned and received by the deportment at a later date. If supply sends a partial issue and requisitions the balance, record the partial issue quantity in the lower half of the space and enter the remainder above it when you receive it later.

14. Date received: The date you received the material. This is the Julian date that the quantity in column 13 was received. Again, in the case of a partial issue followed by a later issue, enter two dates for the two quantity entries in column 13.

15. Completed: When the total quantity requested (column 6) equals the quantity received (total entries in column 13 for that document), place a check mark in column 15. This lets you see at a glance those issue requests that have and have not been completed. Without this information, documents with no entries in blocks 13 and 14 arc obviously still outstanding. Entries in columns 13 and 14, however, do not neccessarily indicate completion. The quantity received must still be checked against the requested quantity to determine if there was a partial issue. Thus, the simple check mark in column 15 increases the effectiveness of these records.